UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,476	12/21/2005	Ulrike Hees	268082US0PCT	8176

22850 7590 02/21/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
NGUYEN, TRI V	
ART UNIT	PAPER NUMBER
1796	

NOTIFICATION DATE	DELIVERY MODE
02/21/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/529,476	HEES ET AL.	
	Examiner	Art Unit	
	TRI V. NGUYEN	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5-13 and 16-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 5-13, 16-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/24/08 has been entered.

Response to Amendment

2. Upon the amendment filed on 1/24/08, Claim 1 is amended and Claims 2-4 and 14-15 are cancelled. The currently pending claims considered below are Claims 1, 5-13 and 16-22.

The declaration under 37 CFR 1.132 filed 12/21/07 is insufficient to overcome the rejection of claim 1 based upon Herrmann et al., Siegel et al. or Kazuo et al. in view of Mischke et al. or Buhler et al. as set forth in the last Office action because: the showing of unexpected result is not commensurate with the instant claimed molecular weight range of 11 000 to 20 000 g/mol. Furthermore, the examiner notes that the showing of a molecular weight of 12 000 g/mol as disclosed in the Siemensmeyer declaration is indicative of new matter as there seems to be no literal basis for a molecular weight of 12 000 g/mol in the original specification.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re*

Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 5 and 7 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 and 5-6 of U.S. Patent No. 6,607,565 in view of Mischke et al. (US 5,508,389). Claims 1-2 and 5-6 of the '565 reference are an inkjet printing and a sublimation transfer printing respectively. The '565 reference fails to teach the molecular weight component B. The Mischke et al. reference disclose a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 350 to 35,000. It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product to arrive at the desired viscosity prevention absent of unexpected results.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 5-12 and 16-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Herrmann et al. in view of Mischke et al. or Buhler et al.

Herrmann et al. disclose an inkjet process and a sublimation transfer printing on a textile with a composition comprising 0.1 to 30% by weight of an anthraquinone or quinophthalone

which are free from ionic groups dye (component A), 0.1 to 20% by weight of a dispersant (component B), 10 to 90% by weight of a mono- or polyhydric alcohol and optionally water (see abstract). Hermann et al. disclose the product of naphthalenesulfonic acid and formaldehyde condensation as component B (col 4, lines 33 et seq.). Herman et al. disclose the customary agents such as foam inhibitors in the amounts of 1% by weight or less 9 (col 7, lines 15-21). Hermann et al. disclose the dyes of formula (I) and (II) in the composition (see col 1 and 2). Hermann et al. disclose the product of naphthalenesulfonic acid and formaldehyde condensation as component B (col 4, lines 29 et seq.). Herman et al. disclose the polyol component such as polyethylene glycol (col 5, lines 17-58 and col 7), a surface tension of 30 to 70 Nm/m (col 7, lines 39-41), a viscosity range of 1 to 4 mm^2/sec (col 7, lines 36-38) and a pH ranging from 5 to 11 (col 7, lines 42-44).

However, Herrmann et al. do not explicitly disclose a composition that includes component B with an average molecular weight of at least 11 000g/mol and the components in the amounts as those recited by the Applicant.

In an analogous art, Mischke et al. show that dispersants from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 350 to 35,000 are well known (Mischke: col 3, line 21 et seq.). It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product of Herrmann et al. to arrive at the desired viscosity prevention absent of unexpected results.

In an analogous art, Buhler et al. teach additives such as anionic dispersant from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 1000 to 100,000 are well known (Buhler: parag. 36). It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product of Herrmann et al. to arrive at the desired viscosity prevention absent of unexpected results.

Regarding the percentage amounts of the components and ranges in the experimental conditions and properties, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch,* 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In addition, a *prima facie* case of obviousness exists because the claimed ranges "overlap or lie inside ranges disclosed by the prior art", see *In re Wertheim,* 541 F.2d 257, 191 USPQ 90 (CCPA 1976; *In re Woodruff,* 919 F.2d 1575, 16USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2131.03 and MPEP 2144.05I.

6. Claims 1, 5-12, 16-17 and 19-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Siegel et al. in view of Mischke et al. or Buhler et al.

Siegel et al. disclose an inkjet process and a sublimation transfer printing on a textile with a composition comprising 0.1 to 30% by weight of an anthraquinone or quinophthalone which are free from ionic groups dye (component A), 0.1 to 20% by weight of a dispersant (component B), 0.1 to 30% by weight of a mono- or polyhydric alcohol and optionally water (see abstract and col 5, lines 17 et seq.). Siegel et al. disclose the customary agents such as foam inhibitors in the amounts of 1% by weight or less (col 7, lines 15-21). Siegel et al. disclose the dyes of formula (I) and (II) in the composition (see col 1 and 2). Siegel et al. disclose the

product of naphthalenesulfonic acid and formaldehyde condensation as component B (col 4, lines 29 et seq.). Siegel et al. disclose the polyol component such as polyethylene glycol (col 5, lines 17-58 and col 7), a surface tension of 30 to 70 Nm/m (col 7, lines 39-41), a viscosity range of 1 to 4 mm2/sec (col 7, lines 36-38) and a pH ranging from 5 to 11 (col 7, lines 42-44).

However, Siegel et al. do not explicitly disclose a composition that includes component B with an average molecular weight of at least 11 000 g/mol and the components in the amounts as those recited by the Applicant.

In an analogous art, Mischke et al. show that dispersants from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 350 to 35,000 are well known (Mischke: col 3, line 21 et seq.). It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product of Siegel et al. to arrive at the desired viscosity prevention absent of unexpected results.

In an analogous art, Buhler et al. teach additives such as anionic dispersant from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 1000 to 100,000 are well known (Buhler: parag. 36). It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product of Siegel et al. to arrive at the desired viscosity prevention absent of unexpected results.

In an analogous art, Buhler et al. teach additives such as anionic dispersant from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 1000 to 100,000 are well known (Buhler: parag. 36). It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product of Herrmann et al. to arrive at the desired viscosity prevention absent of unexpected results. Regarding the percentage amounts of the components and ranges in the experimental conditions and properties, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select

the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch,* 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In addition, a *prima facie* case of obviousness exists because the claimed ranges “overlap or lie inside ranges disclosed by the prior art”, see *In re Wertheim,* 541 F.2d 257, 191 USPQ 90 (CCPA 1976; *In re Woodruff,* 919 F.2d 1575, 16USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2131.03 and MPEP 2144.05I.

7. Claims 1, 5-12 and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuo et al. in view of Hermann et al. and Mischke et al. or Buhler et al.

Kazuo et al. disclose a inkjet printing process with a composition that includes a disperse dye such as anthraquinone or azo-based (component A), a naphthalenesulfonic acid and formaldehyde condensation product (component B), a glycol (component C), viscosity additives (Component D) and water (see abstract and page 2, parag. 11-15).

However, Kazuo et al. do not explicitly disclose a composition that includes component B with an average molecular weight of at least 11 000 g/mol, the various dyes and the components in the amounts as those recited by the Applicant.

In an analogous art, Mischke et al. show that dispersants from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 350 to 35,000 are well known (Mischke: col 3, line 21 et seq.). It would have been obvious to a skilled artisan to

optimize the molecular weight of the condensation product of Kazuo et al. to arrive at the desired viscosity prevention absent of unexpected results.

In an analogous art, Buhler et al. teach additives such as anionic dispersant from a condensation product of naphthalenesulfonic acid and formaldehyde with a molecular weight of 1000 to 100,000 are well known (Buhler: parag. 36). It would have been obvious to a skilled artisan to optimize the molecular weight of the condensation product of Kazuo et al. to arrive at the desired viscosity prevention absent of unexpected results.

In an analogous art, Hermann et al. disclose the dyes of formula I and II (see col 1 and 2). the polyol component such as polyethylene glycol (col 5, lines 17-58 and col 7), a surface tension of 30 to 70 Nm/m (col 7, lines 39-41), a viscosity range of 1 to 4 mm2/sec (col 7, lines 36-38) and a pH ranging from 5 to 11 (col 7, lines 42-44). The claims would have been obvious because a particular known technique was recognized as part of the ordinary capabilities of a skilled artisan.

Regarding the percentage amounts of the components and ranges in the experimental conditions and properties, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the portion of the prior art's range which is within the range of applicant's claims because it has been held to be obvious to select a value in a known range by optimization for the best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch,* 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). In addition, a *prima facie* case of obviousness exists because the claimed ranges “overlap or lie

inside ranges disclosed by the prior art", see *In re Wertheim,* 541 F.2d 257, 191 USPQ 90 (CCPA 1976; *In re Woodruff,* 919 F.2d 1575, 16USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2131.03 and MPEP 2144.05I.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siegel et al., Hermann et al. or Kazuo et al. in view of Mischke or Buhler et al. and further in view of Siemensmeyer et al.

Siegel et al., Hermann et al. or Kazuo et al. and Mischke or Buhler et al. disclose the dye preparation of claim 1 but do not explicitly disclose the azo dye of formula (III). In an analogous art, Siemensmeyer et a. disclose a dye preparation with the azo dye of formula (III) (see abstract and col. 8). Because the references teach similar dye compositions, the claim would have been obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Response to Arguments

9. Applicant's arguments filed on 01/24/08 have been fully considered but they are not persuasive. Applicants' argument is directed to a showing of unexpected results to overcome the cited prior arts (page 8 et seq.). The examiner respectfully disagrees as the unexpected showing of dispersants 4 and 5 starting on page 12 is not commensurate with the instant claims. The examiner notes that the dispersants 4 and 5 are directed to a condensation products of 16 000 g/mol and 18 000 g/mol respectively while the instant claim is directed to a value range of 11 000 - 20 000 g/mol. Furthermore, the Siemensmeyer declaration has been discussed above.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRI V. NGUYEN whose telephone number is (571)272-6965. The examiner can normally be reached on M-F 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lorna M. Douyon/
Primary Examiner
Art Unit 1796

/T. V. N./
2/20/2008